

# Overview of Recent Groundwater Related Policy Documents

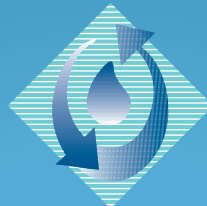
Groundwater Caucus Meeting

*California Water Plan – Update 2013*

*May 19, 2011*



Tim Parker  
Parker Groundwater and  
Groundwater Resources Association of California

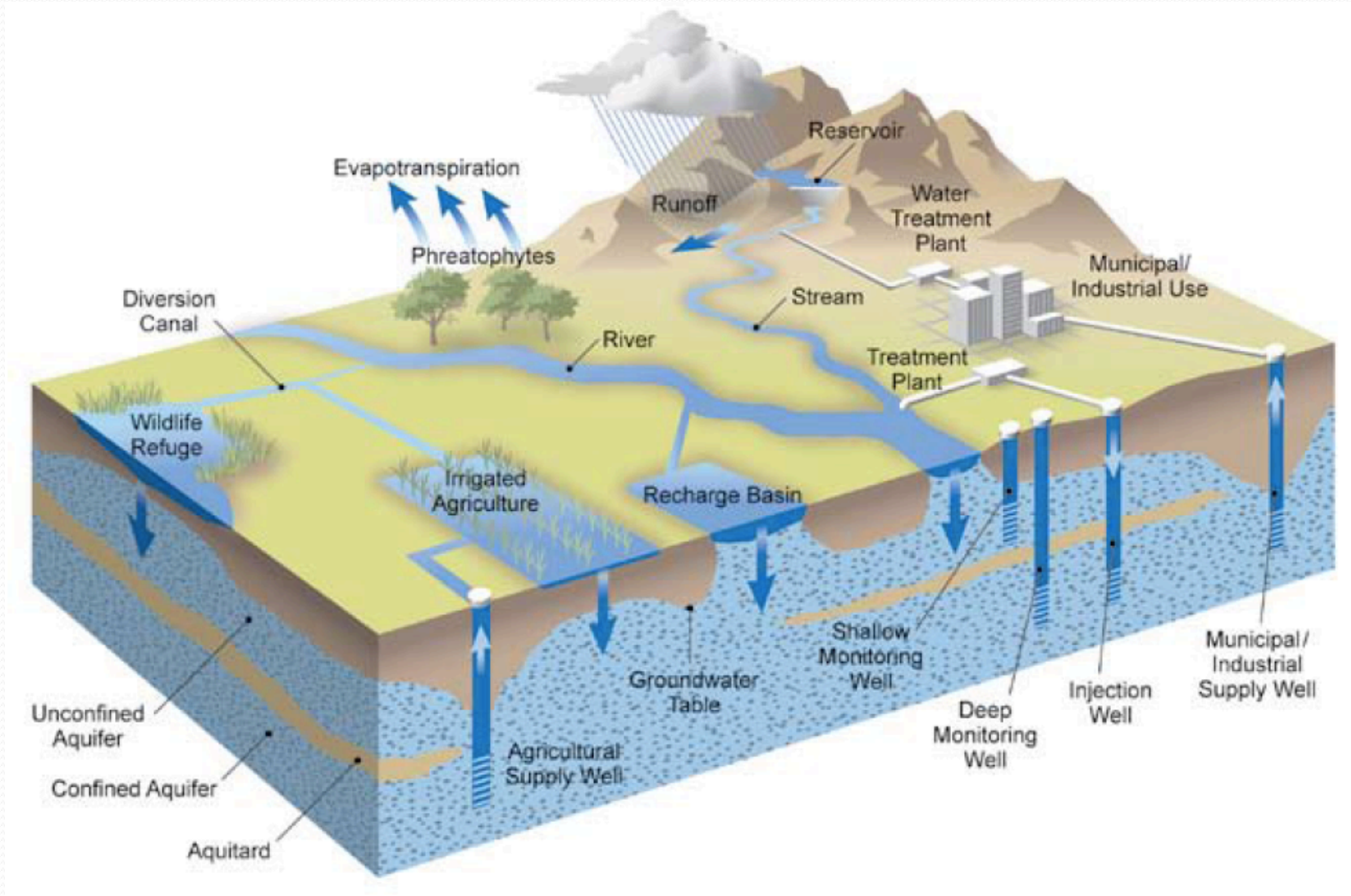


GROUNDWATER RESOURCES ASSOCIATION  
OF CALIFORNIA

# Outline

- California Setting
- Policy Review Efforts
  - Legislative Analyst's Office
  - Public Policy Institute of California
  - Delta Stewardship
  - Assembly Water, Parks & Wildlife Committee
  - Association of California Water Agencies
  - Woods Institute - Stanford
- Common Themes & Summary



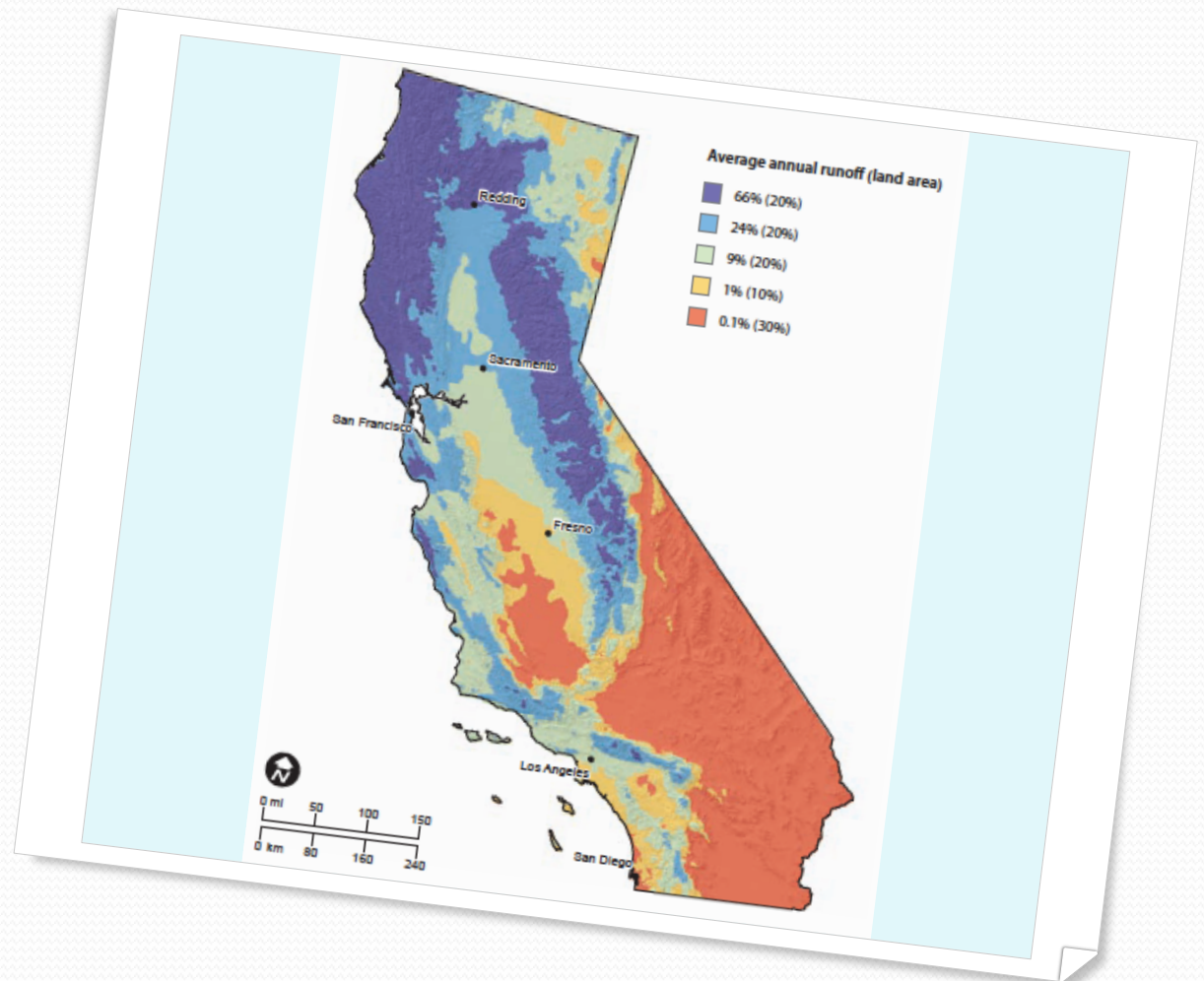


## California's Groundwater Basins



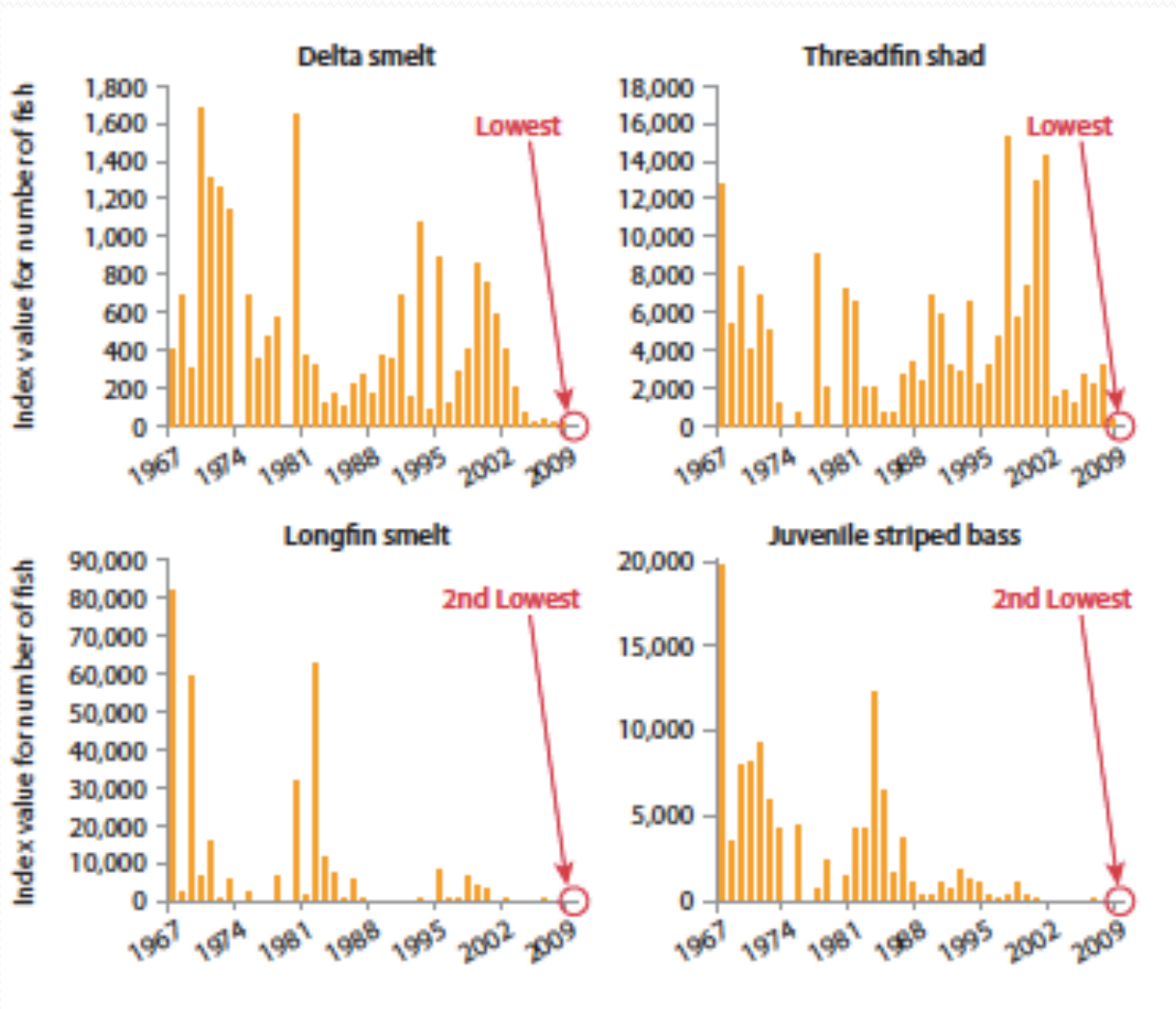


## California's Annual Run-off



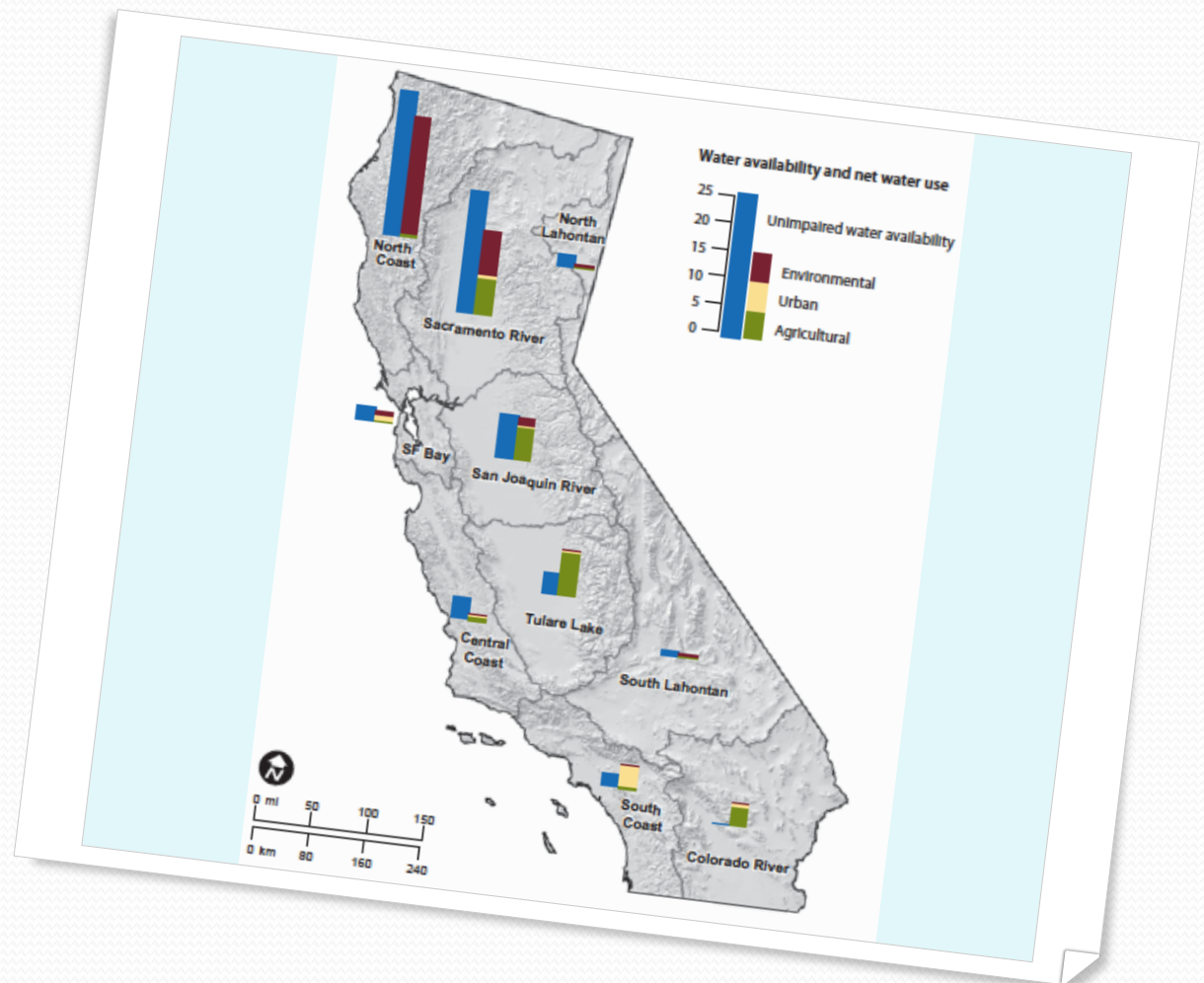
# California's Water Infrastructure





## California Hydrologic Regions

Local Water  
Availability and  
Water Demand



# Increasing Reliance on Groundwater





# 2009 Legislation

- New requirements to monitor groundwater levels
- New targets for urban water conservation
- Agricultural water agencies required to develop new water management plans and impose water charges
- Recognizing reasonable use and the public trust as the foundation of California water resources management
- More resources for water rights enforcement
- Establishment of a new Delta governance framework to balance human and environmental of the Delta



# Legislative Analyst's Office



- Groundwater Management and Drinking Water Quality Issues - 2008
- California's Water - An LAO Primer – 2008
- Water Rights: Issues and Perspectives - 2009
- Liquid Assets: Improving Management of the State's Groundwater Resources – 2010
- Improving Management of the State's Groundwater Resources - 2011



# Improving Management of the State's Groundwater Resources

- Groundwater major part of supply
- Improved management of groundwater a key
- No comprehensive, statewide regulation of groundwater use
- Patchwork of state and local rules
- Disparate state agencies responsible
- Recent legislation – major new level monitoring statewide
- Disconnect between groundwater law and science
- Groundwater contamination
- Gaps in groundwater management statewide complicated statewide water planning



# Improving Management of the State's Groundwater Resources

- Phase in comprehensive, statewide monitoring including standardized extraction data
- Establish Active Management Areas
- Remove the legal distinction between percolating groundwater and subterranean streams
- Consider phasing in statewide groundwater use permitting



# Public Policy Institute of California



**PPIC**

PUBLIC POLICY  
INSTITUTE OF CALIFORNIA

- Water for Growth: California's New Frontier – 2005
- Adapting California's Water Management to Climate Change - 2008
- California Water Myths – 2009
- California Water: Planning for a Better Future - 2011
- Managing California's Water: From Conflict to Reconciliation - 2011



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# Managing California's Water: From Conflict to Reconciliation

- Competition for water has become intense
  - Water quality concerns are growing
  - Flood risks high and growing
  - Ecosystems and native species in decline
- California's failing water policy
    - Infrastructure limits and constraints
    - Funding limits
    - Changing climate
    - Environmental failures
    - Absence of consensus

*“Failure of California’s legislature to include groundwater in the modern Water Code in 1913 and subsequent failure to regulate groundwater have resulted in the fragmented and often ineffective management of this resource”*



# Managing California's Water: From Conflict to Reconciliation

- Consequences of inaction – Significant
- Groundwater overdraft and unregulated pumping a source of growing conflict
- Groundwater level declines reduce streamflows and adversely impact aquatic and riparian habitat
- Coordination at the groundwater basin level is required to limit problems of overdraft
- Calls for increased basin management and coordination, including groundwater banking, stormwater capture & groundwater recharge
- Calls for a modern state water policy, to include extending State Water Resources Control Board jurisdiction to all groundwater extraction
  - Require that local water districts establish effective basin management protocols



# Assembly Water, Parks & Wildlife Committee – February 2011

## Topics Covered

- California only state in southwest that does not regulate groundwater
- Groundwater Overview
- Legislative Analyst's Report
- Statewide Monitoring
- Successful local groundwater management programs in place in many areas
- Current Challenges

## Some Key Points

- Good management occurring
- Some areas have chronic groundwater level declines
- Groundwater declines adversely impact streamflows and riparian habitat
- Groundwater contamination also problematic – especially nitrate
- Management improvement needed in some areas
- State policy may need to change



# Third Draft Delta Plan – April 2011

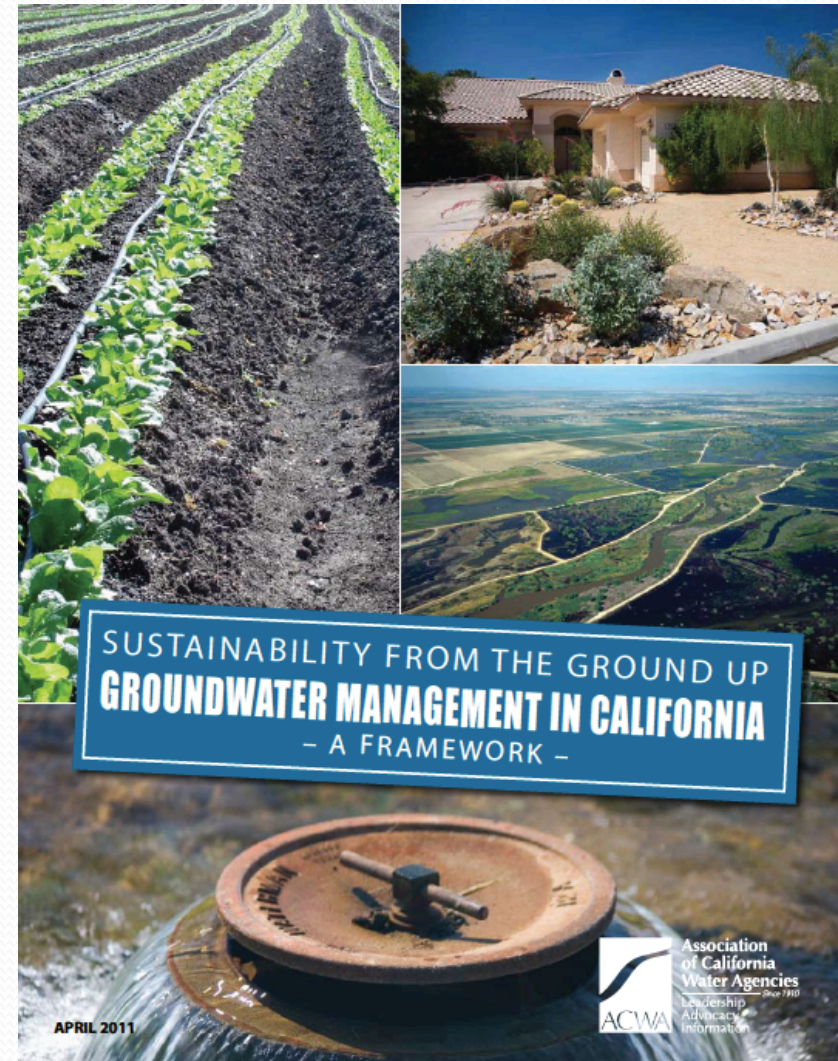
- Groundwater use exceeds natural replenishment
- Although groundwater and surface water are part of an interconnected system, the State Water Resources Control Board has no clear authority to manage groundwater
- Groundwater storage and conjunctive use can enhance state water system operational flexibility and supply reliability
- Improved groundwater management needed statewide to achieve the coequal goals
- Year 2100 desired outcome – sustainable groundwater management; overdraft eliminated
- Sustainable groundwater management plans should be required:
  - Water suppliers that deliver water diverted or exported from the Delta or the Delta watershed and that receive a significant percentage of their water supplies from groundwater sources
  - Basins in chronic overdraft





# Association of California Water Agencies

- California has a long history of managing groundwater locally
- Current and future challenges demand even more of local agencies to meet statewide water policy goals
- Challenges include unreliable deliveries of surface water from CVP and SWP and greater reliance on groundwater
- Statewide permitting and regulation would undermine the effectiveness of local investments and would be counter productive
- Investments in groundwater and surface water storage and conveyance infrastructure must be made





# Association of California Water Agencies Groundwater Sustainability Framework

- 2009 historic legislation important step towards improving state's water supply reliability and restoring Delta ecosystem
- Critical challenge to achieving legislative package goals is raising the bar for more effective management of groundwater resources while groundwater demands increasing
- Local controlled groundwater management is effective
  - Local resource with unique characteristics and needs
  - Local expertise and direct reliance
- Sustainable groundwater management must be accomplished to achieve coequal goals
  - Conveyance
  - Storage
  - Water Resources Development



# Woods Institute, Stanford

## Water in the West

- Measuring the Sustainability of Western Water Systems, May 2010
- Challenges for Non-potable Water Reuse in Northern California, October 2010
- Wastewater as a Valuable Resource, May 2010
- Integrated Regional Management: Solving the Groundwater Challenge, October 2010
- Measuring Performance of Water Systems in California, May 2011
- Uncommon Innovation: Developments in Groundwater Management Planning in California, March 2011



# Uncommon Innovation: Developments in Groundwater Management Planning in California

- No statewide groundwater regulation, but a complicated network of local agencies managing groundwater
- Lack of state oversight results in information being inaccessible on groundwater management programs
- Home grown innovations point the way forward for local agencies to better manage groundwater in CA, including:
  - Measurable objectives to limit groundwater level declines
  - Monitoring, metering and active controls on groundwater withdrawals
  - Management portfolios with transparent decision criteria and simulations
  - Broad stakeholder groups involved in developing collaborative solutions
- Strengthening CA legislation for improved local agency groundwater management based on current best practices would provide better future management



# Common Themes & Summary

- Groundwater is a limited but renewable resource
  - Strong role in economy
  - Increasing reliance on due to Delta constraints
- Groundwater
  - ◆ Much more visible
  - ◆ Continued and accelerated policy debate regarding options including possible regulation and or permitting
- ◆ Comprehensive groundwater management for sustainability strongly encouraged
- ◆ Groundwater Caucus provides opportunity for policy input into the California Water Plan



# Reference Links

- LAO Reports – [www.lao.ca.gov](http://www.lao.ca.gov) - search “water”
- PPIC Reports - <http://www.ppic.org/main/allpubs.asp?sort=area#a15>
- Delta Stewardship –  
<http://www.deltacouncil.ca.gov/delta-plan>
- Assembly Water, Parks & Wildlife Hearing  
<http://www.calchannel.com/channel/viewvideo/1993>
- ACWA GW Framework  
<http://www.acwa.com/content/groundwater/sustainability-ground-framework-groundwater-management-california>
- Woods Institute, Stanford - Water in the West  
<http://www.stanford.edu/group/waterinthewest/cgi-bin/web/news>





# Clarifying Questions?

